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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/043,400	01/10/2002	Keith M. Murr	17708	4638

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EXAMINER

NGUYEN, PHUONGCHI T

ART UNIT	PAPER NUMBER
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2833

DATE MAILED: 09/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/043,400	Applicant(s) MURR ET AL.	
	Examiner Phuongchi T Nguyen	Art Unit 2833	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 July 2003.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9, 19 and 20 is/are rejected.
- 7) ☒ Claim(s) 10-18 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                             | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

### DETAILED ACTION

1. Applicant's amendment of July 10, 2003 is acknowledged. It is noted that claims 1, 3 and 12 are amended

#### *Specification*

2. The disclosure is objected to because of the following informalities: Claim 1, lines 10-13, "the resilient arm being resilient in a direction generally perpendicular to ... receiving face" is not clearly disclosed in the specification. The disclosure must now be amended and revised to correct inaccuracies of description and definition, and to secure substantial correspondence between the claims, the remainder of the specification and the drawings as required, see 37 C.F.R. § 1.121(a)(5). Appropriate correction is required.

#### *Claim Rejections - 35 USC § 112*

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1-8, lines 10-13, is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claim 1, lines 10-13, "the resilient arm being resilient in a direction generally perpendicular to ... receiving face" is not clearly disclosed in the specification.
5. Claims 9-20 are rejected under 35 U.S. C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 9, lines 12-14, it is unclear where is "a resilient spacer positioned between

said substrate and said housing"? Based on the disclosure, instead of a resilient spacer 70 positioned between said substrate 160 and said housing 4; a resilient spacer 70 positioned between said substrate/housing 4 and said chip 150 as shown in figure 2 and 12. Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 9 and 19-20 are rejected under 35 U.S. C. 103(a) as being unpatentable over McHugh et al (US6179624B 1-herein after referred as McHugh'624) in view of in view of Newell (US4831359).

In regard to claim 9, McHugh'624 discloses (figure 8) a socket wherein the chip (7) includes pads (77) thereon, the socket comprising a housing (6) having an upper chip receiving face (upper face of 6), a lower substrate receiving face (lower face of 6), and a plurality of longitudinally lead receiving openings (602) extending between the upper chip receiving face (upper face of 6) and the lower substrate receiving face (lower face of 6), a substrate (9) having a plurality of leads (56) extending upwardly therefrom and positioned within the lead receiving openings (602), with contact ends (57) of the leads (56) positioned below (when the socket is assembly as seen in figure 7) the chip receiving face (upper face of 6). McHugh disclose the invention, but lacks a resilient spacer position between the housing/substrate and the chip housing. However, Newell teaches a resilient spacer (42) positioned between the substrate (28) and the member (44) (figure 2 and column 3, lines 34-40). It would have been obvious to one

having ordinary skill at the time the invention was made to modify the socket of McHugh by providing the deformable spacer between the two housings/substrates of Newell for having a distance to prevent the leads from over compression engagement with the pads on the chip housing. The limitation "for interconnecting a chip to a printed circuit board" is not positively recited and is therefore given little patentable weight.

In regard to claim 19, McHugh'624 discloses (figures 1-2) the socket further wherein the housing (6) includes marginal side walls and marginal end walls (four walls of 61), and the upper chip receiving face (upper face of 6) is defined by a recess (63) into the housing (6) defining inner peripheral edges (inside walls forming by recess 63) in the marginal side walls and marginal end walls (four walls of 61).

In regard to claim 20, McHugh'624 discloses (figures 1-2) the socket further comprising locating members (inner peripheral edges forming a recess 63) positioned adjacent the recess (63) for positioning the chip (7) in the housing (6) in juxtaposition (side by side) with the leads (56). Since the locating member and the inner peripheral edges of claim 19 are carrying the same function, therefore, they are labeled by the same elements.

***Allowable Subject Matter***

8. Claims 1-8 contain allowable subject matter over the art of record.
9. Claims 10-18 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, first paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.
10. The following is a statement of reasons for the indication of allowable subject matter:

In regard to claim 1, the prior fails to teach or suggest the socket wherein the resilient arm being resilient in a direction perpendicular to the lower substrate receiving face, to allow the resilient substrate move up and down from the lower substrate receiving face.

In regard to claim 10, the prior fails to teach or suggest the socket wherein the spacer comprising of at least one arm extending downwardly therefrom for contacting the substrate.

***Response to Arguments***

11. Applicant's argument of "a resilient spacer positioned between said substrate and said housing" is not deem persuasive. Firstly, a resilient spacer 70 is different from the resilient arms 72 as shown in figures 2 and 12. Secondly, the resilient arms 72 are not positioned between the substrate 160 and the housing 4; neither the resilient spacer 70. Instead, the resilient arms 72 and the resilient spacer 70 are positioned within the housing 4 and above the substrate 160 as shown in figure 12.

12. Applicant's argument of "Newell has nothing to do with a chip carrier socket" is not deem persuasive. Because Examiner only applied Newell for the teaching of a resilient spacer 42 positioned between the substrate and another member; and since the structure of the socket assembly of Mr. McHugh et al are substantially the same as the claim limitation; thus the teaching of the resilient spacer 42 of Newell is only applied as intended use.

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO


MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuongchi T Nguyen whose telephone number is (703) 305-0729. The examiner can normally be reached on Monday through Thursday from 8:00AM to 430PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula Bradley can be reached on (703) 308 - 2319. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7723 for regular communications and After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-3329.

September 10, 2003

  
P. AUSTIN BRADLEY  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800